**PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE CALIFORNIA REFORMULATED GASOLINE REGULATIONS REGARDING WINTER OXYGEN REQUIREMENTS IN THE LAKE TAHOE AIR BASIN AND LABELING PUMPS DISPENSING GASOLINE CONTAINING MTBE**

Staff's Suggested Changes to the Original Proposal

PRESENTED AT THE AIR RESOURCES BOARD'S JUNE 24, 1999 HEARING

The attached text contains the staff's suggested modifications to the originally proposed text of the amendments rescinding the minimum oxygen content requirement for gasoline sold in the Lake Tahoe Air Basin between October 1, 1999 - January 31, 2000, and adding requirements for labeling pumps at retail gasoline outlets dispensing gasoline containing methyl tertiary butyl ether (MTBE).

# Proposed Regulation Order

## Amendments to the California Reformulated Gasoline Regulations

**Note**: The preexisting regulation text is set forth below in normal type. The originally proposed amendments are shown in underline to indicate additions and ~~strikeout~~ to show deletions. The staff's suggested modifications to the originally proposed text are shown in double underline to indicate additions and **~~bold strikeout~~** to show deletions. The characters "* * * *" indicate that no amendments to the omitted intervening text are being proposed.

Amend title 13, California Code of Regulations, section 2262.5(a) to read as follows:

**Section 2262.5. Standards for Oxygen Content.**

(a) ***Minimum wintertime oxygen content standard for specified areas.***

(1) Within the areas and periods set forth in section (a)(2), no person shall sell, offer for sale, supply, offer for supply, or transport California gasoline unless it has an oxygen content of not less than 1.8 percent by weight.

(2)(A) *October 1 through February 29 (of any year):*
South Coast Area

(B) *October 1, 1998 through January 31, 1999 and October 1, 1999 through January 31, 2000:*
~~Lake Tahoe Air Basin~~
Fresno County
Madera County

(C) *October 1, 1998 through January 31, 1999*:
Lake Tahoe Air Basin

(D) *November 1 through February 29 (of any year):*
Imperial County

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NOTE: Authority cited: Sections 39600, 39601, 43013, 43018, and 43101, Health and Safety Code; and *Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975). Reference: Sections 39000, 39001, 39002, 39003, 39010, 39500, 39515, 39516, 41511, 43000, 43016, 43018, and 43101, Health and Safety Code; and *Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975).

Adopt title 13, California Code of Regulations, section 2273, to read as follows:

**Section 2273. Labeling of Equipment Dispensing Gasoline Containing MTBE.**

(a) ***MTBE labeling requirement***. All devices dispensing gasoline containing methyl tertiary butyl ether (MTBE) at filling stations, garages or other outlets where petroleum products are sold or offered for retail shall be marked with a conspicuous label at all times the product is offered for retail sale.

(1) The label shall state that the gasoline being dispensed "Contains MTBE. The State of California has determined that the use of this chemical presents a significant risk to the environment. ~~**(METHYL TERTIARY BUTYL ETHER)**~~".

(2) The label shall be contrasting in color to the gasoline dispensing equipment and have capitalized lettering using not less than ~~**one-half**~~ one-eighth inch high letters ~~**with a stroke of not less than one-eight in width**~~, except that "~~**(METHYL TERTIARY BUTYL ETHER)**~~ MTBE" shall have lettering using not less than ~~**3/16**~~ five-eighth inch high letters with a stroke of not less than one-eighth in width and "Contains" shall have lettering using not less than one-quarter inch high letters.

(3) The label shall be placed on the ~~**upper two-thirds of the**~~ gasoline dispensing equipment's vertical surface, on each side with gallonage and price meters.

(4) The label shall be conspicuous and legible to a customer when viewed from the driver's position inside the car.

(5) The label shall be capable of withstanding extremes of weather conditions for at least one year and shall be resistant to gasoline, oil, grease, solvents, detergents, and water. Damaged labels that are not legible shall be replaced.

(b) ***Residual levels of MTBE.***

(1) The labeling requirements in section 2273(a) do not apply to equipment dispensing gasoline from a storage tank containing gasoline having an MTBE content of less than ~~**0.3**~~ 0.6 percent by volume, as determined by American Society of Testing and Materials (ASTM) Test Method D 4815-94a, which is incorporated herein by reference, or any other test method determined by the executive officer to give equivalent results. ~~**For the purposes of this section 2273(b), the MTBE content of gasoline in retail gasoline storage tanks may be determined through any of the following methods.**~~

~~**(1)**~~(2) ~~**It shall be presumed that the MTBE content in a retail gasoline storage tank is less than 0.3 percent by volume if**~~ The labeling requirements in section 2273(a) do not apply where the equipment is dispensing gasoline from a storage tank containing gasoline having an MTBE content of less than 3.0 percent by volume, as determined by a test

method identified in section 2273(b)(1), and the operator of the retail outlet demonstrates that the conditions in either section 2273(b)(2)(A), (B), (C) or (D) have occurred.

(A)~~the~~ The gasoline storage tank has been consecutively drained and refilled to at least 95 percent of capacity with gasoline containing less than 0.6 volume percent MTBE as specified in the following table~~, unless a test conducted in accordance with section 2273(b)(3) shows an MTBE content of 3.0 percent or more~~.

| The percent of the total gasoline storage tank capacity that is emptied prior to refilling | The consecutive number of times the gasoline storage tank must be drained and refilled |
|---|---|
| 90% | 2 |
| 80% | 3 |
| 70% | 3 |
| 60% | 4 |
| 50% | 6 |
| 40% | 8 |
| 30% | 11 |
| 20% | ~~17~~ 19 |
| 10% | ~~36~~ 60 |

~~(2)~~ (B) ~~It shall be presumed that the MTBE content in a retail gasoline storage tank is less than 0.3 percent by volume if the operator of the retail outlet demonstrates that the~~ The gasoline storage tank has been consecutively drained and refilled to at least 95 percent of capacity with gasoline containing less than 0.6 volume percent MTBE according to the following equation~~, unless a test conducted in accordance with section 2273(b)(3) shows an MTBE content of 3.0 percent or more~~.

$$N = -(\text{~~0.523~~}0.222 + \log C_o)/\log (V_I/V_T)$$

Where:

$N$ = The number of times the gasoline storage tank must be drained and refilled. If the resultant number is not an integer, it shall be rounded up to the nearest integer.

$C_o$ = The initial concentration, in volume percent, of MTBE in the gasoline storage tank.

$V_L$ = The volume of gasoline (in gallons) left in the gasoline storage tank after each draining.

$V_T$ = 95% of t~~T~~he capacity (in gallons) of the gasoline storage tank.

(C)The following equation has been applied to consecutive drainings and fillings of the gasoline in the storage tank, and the equation shows an MTBE content of less than 0.6 percent by volume. The initial MTBE concentration ($C_o$) of the gasoline in the storage tank when the equation is first applied shall be deemed to be 15 volume percent unless the MTBE content is determined in accordance with a testing methodology identified in section 2273(b)(1). For purposes of the equation, [i] the MTBE concentration of gasoline containing less than 0.6 volume percent MTBE shall be deemed to be zero, and [ii] the MTBE concentration of gasoline delivered with an invoice or other documentation stating that the gasoline contains MTBE shall be deemed to be 15 volume percent or, if the concentration of MTBE is stated on the documentation, that stated concentration. The executive officer shall make available upon request a computer program that may be used in applying the equation.

$$C = C_o(V_L/(V_L+V_D)) + C_D(V_D/(V_L+V_D))$$

Where:

$C$ = The final concentration, in volume percent, of MTBE in the gasoline storage tank after the fuel delivery.

$C_o$ = The initial concentration, in volume percent, of MTBE in the gasoline storage tank before the fuel delivery.

$C_D$ = The concentration, in volume percent, of MTBE in the fuel being delivered to the gasoline storage tank.

$V_L$ = The volume of gasoline (in gallons) left in the gasoline storage tank prior to fuel delivery.

$V_D$ = The volume of gasoline (in gallons) delivered to the gasoline storage tank.

(D) The gasoline has been consecutively drained and refilled in accordance with an alternative protocol which the executive officer has previously found in writing provides assurances of MTBE removal equivalent to the conditions in section 2273(b)(2)(A), (B), and (C).

**~~(3) The MTBE content in a retail gasoline storage tank may be determined by American Society of Testing and Materials (ASTM) Test Method D 4815-94a, which is incorporated herein by reference, or any other test method determined by the executive officer to give equivalent results.~~**

(c) ***Responsibility for compliance.*** The operator of the retail gasoline outlet shall be responsible for compliance with the labeling requirements in section 2273(a).

(d) ***Deliveries of gasoline to retail outlets.***

(1) Any person delivering gasoline **~~containing 0.3 percent by volume or more MTBE~~** to a retail gasoline outlet shall provide to the outlet operator or responsible employee, at time of delivery of the fuel, an invoice, bill of lading, shipping paper, or other documentation **~~specifying the presence and approximate~~** which states whether the gasoline does or does not contain 0.6 percent by volume or more MTBE, and which may identify the volumetric amount of MTBE in the gasoline. For purposes of determining compliance with this section 2273(d), the volumetric MTBE content of gasoline shall be determined by ASTM Test Method D 4815-94a, which is incorporated herein by reference, or any other test method determined by the executive officer to give equivalent results.

(2) No person shall deliver gasoline containing 0.6 percent by volume or more MTBE to a storage tank at a retail gasoline outlet unless at the time of the delivery either:

(A) All pumps dispensing gasoline from the storage tank are labeled as containing MTBE, or

(B) The party delivering the gasoline, or on whose behalf the delivery is being made, can demonstrate that it has received and is maintaining a nonsuperceded written notification from the operator of the retail gasoline outlet that all of the outlet's gasoline dispensing equipment, or all of the outlet's dispensing equipment dispensing gasoline of the grade being delivered, is labeled as containing MTBE.

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018 and 43101, Health and Safety Code; and *Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal. Rptr. 249 (1975). Reference: Sections 39000, 39001, 39002, 39003, 39010, 39500, 39515, 39516, 41511, 43000, 43016, 43018 and 43101, Health and Safety Code; and *Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal. Rptr. 249 (1975).

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## *COMMENTARY ON MODIFICATIONS TO THE ORIGINAL PROPOSAL*

All of the suggested modifications to the original proposal pertain to the MTBE labeling and related requirements in proposed new section 2273.

1. ***The labeling requirements in section 2273(a).***

(a) ***Label text.*** The text of the label would be modified to add the statement that "The State of California has determined that the use of this chemical presents a significant risk to the environment." This statement is identical to the language that would be required under pending SB 192 (Perata). The label would no longer have to set forth the full chemical name of MTBE, as the public is much more aware of the acronym "MTBE" and elimination of the full chemical name will allow focus on the rest of the label text.

(b) ***Label format and placement.*** The minimum size of the letters would be modified to be more appropriately tailored to the required text. To provide greater flexibility on placement of the label, the requirement for placement on the upper two-thirds of the dispenser would be eliminated; the remaining requirement that the label be conspicuous and legible to the driver should be adequate to assure appropriate placement.

2. ***Residual MTBE levels not triggering the labeling requirement.***

(a) ***Revising the permitted residual level of MTBE from 0.3 vol.% to 0.6 vol. %.*** At the May 6, 1999 workshop, interested parties commented that it was unrealistic to categorize "non-MTBE" gasoline as containing less than 0.3 volume percent (vol.%) MTBE. This is because contamination from prior deliveries of gasoline containing MTBE could occur in storage tanks, delivery trucks and the pipeline. To better accommodate these possible sources of MTBE contamination, interested parties urged an allowable level of 0.6 to 1.5 vol.% MTBE to categorize non-MTBE gasoline. Staff agrees there is a need to increase the originally proposed 0.3 vol.% level, and recommends a modification to 0.6 vol.%. Staff believes that a 0.6 vol.% MTBE cut-off is sufficiently low to prevent gasoline intentionally blended with MTBE to be labeled as non-MTBE, but is high enough to allow for shipments of gasoline blended without MTBE to be shipped within the current gasoline distribution system.

(b) ***Restructuring of provisions.*** The provisions of section 2273(b) would be restructured to make them clearer and more straightforward; *the restructuring is not intended to result in a substantive change.* As originally proposed, the lead-in paragraph of section 2273(b) made the labeling requirements inapplicable where the MTBE content of the gasoline is less than 0.3 vol.%, and then provided that the MTBE content could be determined by any of the three methods in (b)(1), (b)(2), and (b)(3) respectively. Subsection (b)(3) identified an established ASTM test method for determining MTBE content, and authorized the approval of equivalent methods. Subsections (b)(1) and (b)(2) identified presumptions that the gasoline was below 0.3 vol.% if the gasoline storage tank had been drained and refilled in accordance with either of two alternative procedures, and the MTBE did not exceed 3.0 vol.%. Treatment of the two presumptions as methods for determining MTBE content could be confusing because they did not in fact determine the actual MTBE content of the gasoline — rather they were intended to protect the retail outlet operator from liability notwithstanding the fact that the actual MTBE content exceeded 0.3 vol.%.

Since the ASTM test method is the only one of the alternatives that truly determines the MTBE content, section 2273(b)(1) of the modified text identifies the ASTM test method as the sole method for determining the actual MTBE content of the gasoline at the retail outlet (along with methods deemed equivalent). Modified section 2273(b)(2) then provides that the MTBE labeling requirements do not apply under the circumstances that had previously triggered the presumptions; these circumstances are set forth in section 2273(b)(2)(A) and (B). As discussed below, the modifications make limited corrections to the characterization of the section 2273(b)(2)(A) and (B) conditions, and would add two additional circumstances in section 2273(b)(2)(C) and (D) that would relieve the operator of liability.

(c) ***Revising the table on filling and draining in the original text.*** The last two numbers in the right-hand column in the originally proposed table in section 2073(b) — now section 2073(b)(2)(A) — would be changed to reflect the modified 0.6 vol.% residual MTBE level being suggested by staff. Clarifying changes in the headings of the table are designed to better reflect staff's original intent.

(d) ***Revising the equation in the original text.*** A number in the original equation (section 2073(b)(2)(B) in the modified text) would be changed to reflect the modified 0.6 vol.% residual MTBE level being suggested by staff, and the lead-in language would be clarified to better reflect staff's original intent that the refillings be consecutive and fill the storage tank to at least 95% of capacity.

(e) ***Addition of an alternative equation.*** To provide the operator of a retail outlet more flexibility in assuring compliance with the regulation, staff has developed an alternative equation that could be used when the tank is not always filled to 95% of capacity. This alternative equation also has the advantage of being useable where there is an intervening delivery of gasoline containing MTBE among the deliveries of non-MTBE gasoline. Availability of a computer program will make it easier for interested parties to apply the equation.

(f) ***Alternative protocol.*** The section 2273(b)(2)(D) allowance of alternative protocols found equivalent by the Executive Officer would provide operators of retail outlets with additional flexibility in assuring compliance with the regulation.

3. ***Deliveries of gasoline to retail outlets.*** The requirement in relettered section 2273(e) that the invoice or other documentation for gasoline containing at least 0.6 percent by volume MTBE identify the approximate concentration of MTBE would be eliminated, because it is difficult for carriers transporting commingled batches of gasoline to know or routinely determine the actual MTBE concentration. Language would be added making it clear that the documentation *may* identify the MTBE concentration; this information could be used by a retail outlet operator applying the equation described in section 2273(b)(2)(C). Since retail outlet operators will be relying on the MTBE information on the invoice or other documentation in applying the equation, it is particularly important that all deliveries of gasoline to outlets transitioning to non-MTBE gasoline be accurately labeled. To make sure that the distributor make an affirmative determination, the modified language would require the documentation for deliveries of *all* gasoline to identify whether or not the gasoline contains 0.6 percent by volume or more MTBE.

There is a need to assure that as long as a gasoline dispenser does not carry an MTBE label, the gasoline being delivered to the storage tank supplying the dispenser has not been produced with MTBE. The modifications would add new section 2273(e)(2), which is designed to address this need. Since there can be circumstances where it is difficult for the tank truck driver to ascertain that the appropriate labels are posted, section 2273(e)(2)(B) would allow the distributor to rely on a written notification previously provided by the operator of the retail outlet.

4. ***Headings.*** Explanatory headings have been added to the various subsections to make the

regulation more readable.